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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,724	12/10/2003	Joel A. Kubby	D/A3149	2677

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EXAMINER

BOECKMANN, JASON J

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. .

10/732,724

Applicant(s)

KUBBY ET AL.

Examiner

Jason J. Boeckmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-8, 10, 21, 23-28, 30 and 40-49 is/are pending in the application.
- 4a) Of the above claim(s) 40-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 10, 21, 23-28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/10/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of invention I and species I in the reply filed on 5/15/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 11-20 and 31-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/15/2006.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

The drawings were received on 5/15/2006. These drawings are not acceptable. The drawings filled on 12/10/2003 remain the drawings of record.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the features listed below are not clearly shown. For example, the

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dotted block 210a does not appear to show an electrostatically driven membrane nor does the dotted block 210b show an electrostatically actuated piston.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

- a. The reservoir port of claims 1 and 21,
- b. The electrostatically-driven membrane of claims 3 and 23,
- c. The electrostatically-actuated piston of claims 3 and 23,
- d. The magnetically-actuated membrane of claims 3 and 23,
- e. The thermally-actuated paddle vane of claims 3 and 23,
- f. The ballistic aerosol dispensing mechanism, of claims 3 and 23,
- g. The orifice plate of claims 10 and 30, where the orifice plate is arranged such that at least one of the one or more fluids dispensed by at least one or more of the micromechanical dispensing mechanisms is further dispensed through the orifice.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the amended description: The following list are only examples of reference numbers not found in the drawings, it is not intended to be inclusive: 210a, 210b, 210c, 210d, 210e, 296, 271a, 273a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 10, 21, 23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gooray et al (6,419,335) in view of Carrese et al (6,390,615).

Gooray et al shows a micro mechanical dispensing device comprising a plurality of micromechanical dispensing mechanisms (electrostatically actuated piston (120), figure 7), each micromechanical dispensing mechanism fluidly connected to a corresponding fluid reservoir (column 5, lines 7-8). The micromechanical dispensing device further comprising a controller (180), the controller arranged to communicate with each micromechanical dispensing mechanism (figure 3). The micromechanical dispensing mechanism includes a port (112), which is fluidly connected to the fluid reservoir (not shown). Gooray et al does not specifically disclose that the device includes a port that is fluidly and removably connected to a reservoir port of the fluid reservoir. However, Carrese et al shows a fluid reservoir (200) containing a reservoir port (202) that is fluidly and removably connected to a receiving port (110). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use the reservoir port (202) and the receiving port (110), of Carrese et al's invention, add them to the reservoir (not shown) and the micro mechanical dispensing device (120), respectively, of Gooray et al's invention, in order to make the fluid reservoir easily replaceable.

Regarding claims 10 and 30, the micromechanical dispensing device of Gooray et al as modified by Carrese et al, further includes an orifice plate comprising an orifice (140).

Claim 4 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Gooray et al (6,419,335) in view of Carrese et al (6,390,615) as applied to claim 1 above, further in view of Helf et al (6,293,474).

Gooray et al as modified by Carrese et al, shows all aspects of the applicants invention as in the rejections of claim 1 above, but does not specifically disclose that the one or more fluids contained in the at least one fluid reservoir comprises a perfume, pheromone, humectant, miticide, deodorizer, disinfectant, sanitizing agent or insecticide. However, Helf et al shows a micromechanical-dispensing device that is used to dispense perfume, disinfectant or insecticide (column2, lines 28-40). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention, under the teachings of Helf et al, to use perfume in the fluid reservoirs of the micromechanical dispensing device of Gooray et al as modified by Carrese et al, in order to make the air smell more pleasant.

Claims 5-7 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gooray et al (6,419,335) in view of Carrese et al (6,390,615) as applied to claims 1 and 20 above, further in view of Hess et al (6,802,460).

Gooray et al as modified by Carrese et al, shows all aspects of the applicant's invention as in the rejection of claims 1 and 20 above including a positioning sensor (160) connected to a control mechanism (180), and used to detect the position of the diaphragm during use. However, the sensor (160) is not arraigned to form a signal responsive to an atmospheric substance that has been dispensed form the micromechanical dispensing device (120). Hess et al teaches, in column 3, lines 15 to 35, that scent sensors are well known in the art and have been "used in electrical control circuitry of scenting and air freshening devices in order to control the release of the scents and their intensity in the respective environments." Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention, under the teachings of Hess et al, to add a scent sensor to the already existing sensor control mechanism of Gooray et al as modified by Carrese et al, in order sense the atmospheric conditions as well as the scents that have been dispensed from the micromechanical dispensing mechanisms. The addition of a scent sensor would allow the micromechanical dispensing mechanisms to automatically determine the correct amount of scent to be dispensed and for what reservoir without user input.

Claims 5-7 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gooray et al (6,419,335) in view of Carrese et al (6,390,615) and Hess et al (6,802,460) as applied to claim 25 above, further in view of Helf et al (6,293,474).

Gooray et al as modified by Carrese et al and Hess et al, shows all aspects of the applicants invention as in the rejections of claim 25 above, but does not specifically

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disclose that the one or more fluids contained in the at least one fluid reservoir comprises a perfume, pheromone, humectant, miticide, deodorizer, disinfectant, sanitizing agent or insecticide. However, Helf et al shows a micromechanical-dispensing device that is used to dispense perfume, disinfectant or insecticide (column 2, lines 28-40). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention, under the teachings of Helf et al, to use perfume in the fluid reservoirs of the micromechanical dispensing device of Gooray et al as modified by Carrese et al and Hess et al, in order to make the air smell more pleasant.

Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gooray et al (6,419,335) in view of Carrese et al (6,390,615) and Hess et al (6,802,460) as applied to claims 5 and 25 above, further in view of Kubby et al (6,357,865).

Gooray et al as modified by Carrese et al, shows all aspects of the applicant's invention as in the rejections of claims 5 and 25 above, but does not specifically disclose one or more check valves interposed between corresponding micromechanical dispensing mechanism and their corresponding fluid reservoirs. However, Kubby et al shows a check valve (column 3, line 48) interposed between a corresponding micromechanical-dispensing device (10) and its reservoir (not shown, column 3, lines 45- 6). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to add the check valve of Kubby et al, to the micromechanical dispensing device of Gooray et al as modified by Carrese et al, in order to prevent fluid from flowing back into the reservoir.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-8, 10, 21, 23-28 and 30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571) 272-2708. The examiner can normally be reached on 7:30 - 5:00 m-f, first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel can be reached on (571) 272-4919. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJB JJB 7/21/06



ERIC KEASEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700



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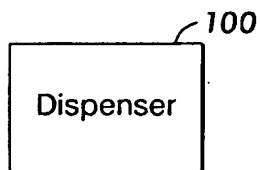


FIG. 1 (PRIOR ART)

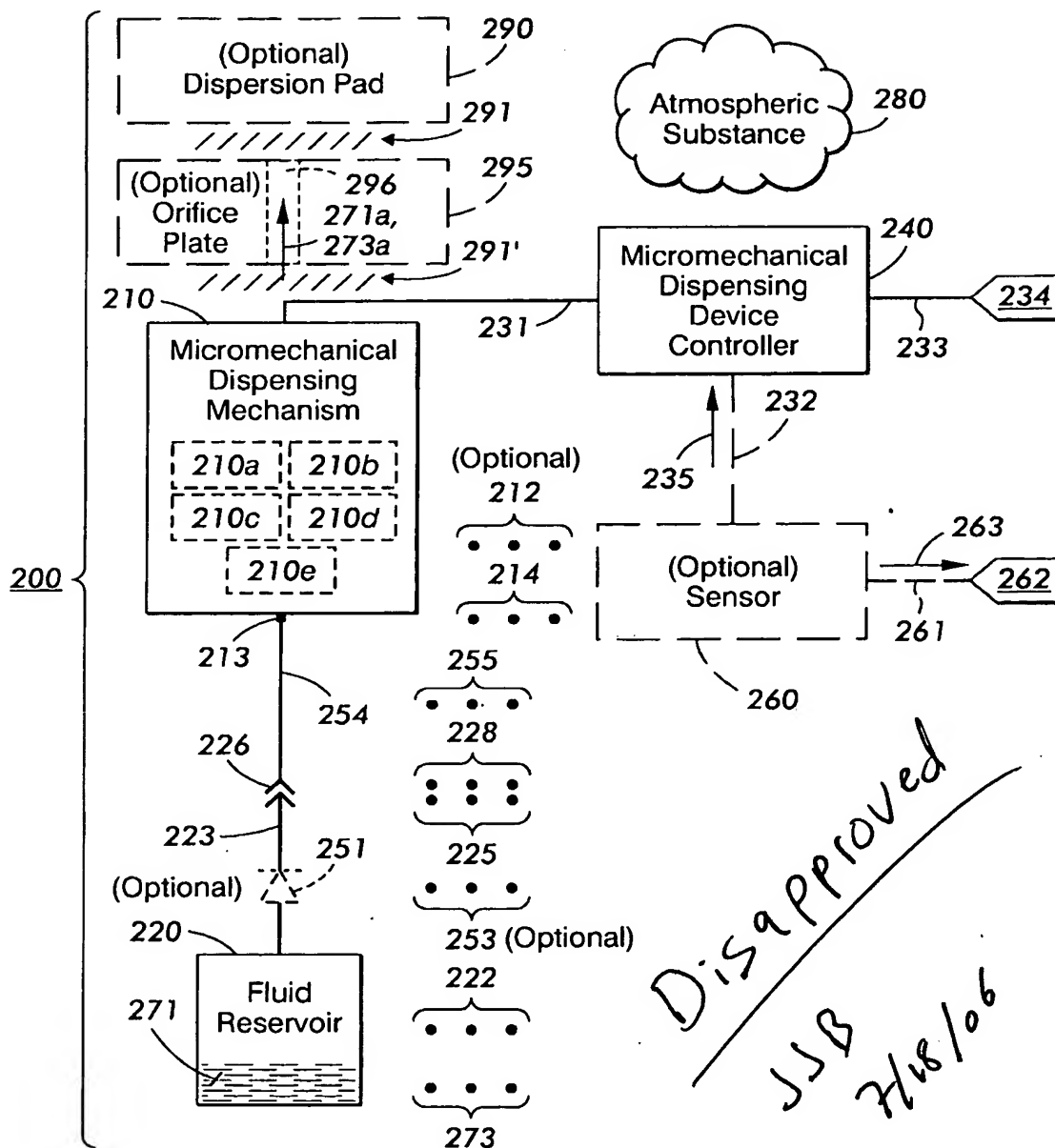


FIG. 2